number of balls from one to two inches in diameter, each composed of several concentric and perfectly parallel layers, the outermost of which, generally white, opaque, and two or three times thick, is composed of quartz and felspar blended in various proportions, and exhibiting a radiated appearance, rather converging towards the centre of the ball. The second layer, which is a greenish black colour and about one line thick, is composed of fine laminar hornblende, and this is surrounded by a white generally translucent quartz layer of about four or five lines in thickness, inclusive of two or three very fine layers of hornblende, that are generally seen within the substance of this third principal layer. Each of these layers is generally of equal thickness in the whole of its circumference, these three parts may be considered as the coating; the interior of the ball is less defined than the surrounding layers; it consists of a blackish and a whitish substance, the former surrounded by and passing into the latter, the centre of which is usually a dark grey spot.

The use of granite for architectural and economical purposes was well known to the ancient Egyptians, their most splendid monuments, and many articles of domestic use and ornament, being of this material, and the fine polish still remaining on many of these colossal remains attests a degree of skill not to be surpassed by sculptors and lapidaries of the present day. In Europe it is now absolutely necessary for many of the economical purposes of life, and would be very extensively used for building and ornamental purposes were it not for the very great expense attending its cutting and polishing. Its use is more amply displayed in Petersburg than perhaps any other capital in the world; not only are the imperial and other palaces built of this material, but many of the ordinary dwellings have their lower parts lined with slabs of it. The left bank of the great river Neva, from the foundry to the Gulf of Cronstadt, and both banks of the Foubanka and of the Catharine Canal, are lined with high walls constructed of such slabs, as are many bridges over the Neva, their balustrades, &c., being also composed of the like material. The pillars, stairs, balconies, &c., in the palace of Cronstadt are almost all of the finest kinds of granite. Those employed for ornamental purposes are cut and polished by lapidaries, but others are worked by the peasantry, and are left in their rough state. The gigantic rock-pedestal, on which the equestrian statue of Peter the Great stands, is one solid mass of granite.

In this country, from being a costly material, it is less extensively employed in ornamental works, still we have many splendid specimens of British granites, as monuments, bridges, and internal decorations; of these Waterloo bridge stands the most prominent. Quarried in the rough, it is most extensively used in street paving and macadamizing, the latter plan being the most ready way conceivable of converting it into mud, the granite being first broken into small pieces, mixed with sand and water, and then ground down to powder by the iron-bound wheels of vehicles of every description. This theoretic fallacy is giving way to the new fashion of wooden pavements, which threatens to banish granite altogether from the streets, or to confine it to their curbs and crossings alone.

THE METROPOLITAN IMPROVEMENTS.—The Commissioners of Woods and Forests have, by their auctioneer, just disposed of some houses in High-street and Essex-street, Whitechapel, which are upon the line of the new street to be formed from Shoreditch Church to the London and St. Katherine's Docks. Upon their removal, with the old buildings at the back of them, there will then be a direct opening to Spitalfields Church. Considerable progress has been made, during the last few weeks, with the improvements in this neighbourhood.

CITY OF LONDON SCHOOL.—The statue of John Carpenter, founder of the City of London School, which has been executed by Mr. S. Nixon, is now fixed under the north window of the staircase: this took place in the presence of the Lord Mayor, members of the Common Council, and the School Committee.

A BILL FOR THE BETTER PREVENTION OF DAMAGE BY FIRE IN THE METROPOLIS AND ITS NEIGHBOURHOOD.

[*Note.*—The words printed in *Italics* in the body of the clauses are proposed to be inserted in the committee.]

Preamble.—WHEREAS by the several provisions of an Act specified in the schedule (A.) to this Act annexed, provision was made for the prevention of damage by fire in the metropolis and the neighbourhood thereof;

But forasmuch as many of such provisions are now inapplicable or defective, it is expedient to amend the same.

GENERAL PROVISIONS.—1. *Operation of Act.—Certain Provisions repealed of Building Act, 14 Geo. 3, c. 78 (1774).*—Now for that purpose, and especially with relation to the service of water, the supply of engines, and other necessary implements, and to the rewards to be given to engineers and other persons for the prompt service of engines; be it enacted, by the Queen's most excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, with regard to this Act generally, so far as relates to the operation thereof in reference to time, that it shall come into operation from and after the *first day of January, one thousand eight hundred and forty-five*; and that thereupon the several provisions set forth in the said schedule (A.) hereunto annexed, shall be and are hereby repealed.

2. *Construction of Words.*—And be it declared with regard to this Act generally, so far as relates to the construction of certain terms and expressions used herein, that the following terms and expressions are intended to have the meanings hereby assigned to them respectively, so far as such meanings are not excluded by the context or by the nature of the subject matter; that is to say:—

Building.—The word "Building" to include all buildings of what nature and kind soever, not excepting royal palaces and buildings in the possession of her Majesty, her heirs and successors, or employed for her Majesty's use or service.

Parish.—The word "Parish" to include all parochial districts and extra-parochial places in which separate churchwardens, overseers, or constables are appointed; and also where two or more parishes have been united for ecclesiastical purposes, the word "Parish" is to include such united parishes.

Churchwarden.—The words "Churchwarden and Overseers" to apply to the overseers of the poor in every precinct or place not having a churchwarden; and in every extra-parochial place not having either a churchwarden or an overseer, to apply to the constable, if any, or in default of the constable, to any officer performing the duties usually performed by churchwardens, or overseers, or constables.

The word "Month" to mean calendar month.

Official Referees.—The term "Official Referees" to mean the persons appointed to be official referees of metropolitan buildings in pursuance of an Act passed in the present session of Parliament, and commonly called "the Metropolitan Buildings Act."

Justice of the Peace.—The term "Justice of the Peace" to mean a justice of the peace for the county or city within which shall arise any subject-matter of which a justice of the peace is made cognizant by this Act; unless it arise within the city of London, or the liberties thereof, in reference to which any matter or thing elsewhere required or authorized to be done by two justices of the peace may be done by the Lord Mayor of the city of London, or by any two justices of the peace for the said city.

Local Officers.—And, generally, whensoever the name of an officer having local jurisdiction in respect of his office is referred to, without mention of the locality to which the jurisdiction extends, such reference is to be understood to indicate the officer having jurisdiction in that place within which the subject-matter to which such reference applies doth arise or is situate.

Singular and Plural numbers.—Masculine and Feminine genders.—Individuals and Corporations.—And, subject as aforesaid to the context, and to the nature of the subject-matter, words importing the singular number are to be understood to apply also to a plurality of persons or things; and words importing the masculine gender are to be understood to apply also to persons of the feminine gender; and words importing an individual are to be understood to apply also to a corporation or company, or other body or association of persons.

3. *Limits of Act.*—And be it enacted, with regard to this Act generally, so far as relates to the operation thereof, in reference to localities, that the operation of this Act shall extend to all places within the following limits; that is to say,—

To all such places lying on the north or left bank of the river Thames as are within the exterior boundaries of the parishes of Fulham, Kensington, Paddington, Hampstead, Hornsey, Tottenham, Saint Pancras, Islington, Stoke Newington, Hackney, Stratford, Bromley, Poplar, and Shadwell:

And to such part of the parish of Chelsea as lies to the north of the said parish of Kensington:

And to all such parts and places lying on the south or right bank of the said river as are within the exterior boundaries of the parishes of Wandsworth, Charlton, Greenwich, Lee, Lewisham, Camberwell, Lambeth, Streatham, Tooting, and Wandsworth:

And to all places lying within *two hundred* yards from the exterior boundaries of the district hereby defined.

4. *Power to extend the limits of Act.—Application of Act.*—And be it enacted, with regard to this Act generally, so far as relates to the application thereof to other parts and places in the neighbourhood of the districts appointed by this Act, whether such districts immediately adjoin such parts or places or not, that if, from the growing increase of the populat on or otherwise, it shall appear to her Majesty in Council to be expedient that the provisions of this Act should be extended to any place within *twelve* miles of Charing-cross, in the city of Westminster, then it shall be lawful for her Majesty in Council to direct, by order in Council, that at or from a time to be named in such order, the provisions of this Act are to apply to such places; and that at or from such time all such provisions, of whatever nature, whether penal or otherwise, so far as they shall be capable of application to such places, shall and are hereby declared to apply thereto, as if such places were expressly named herein.

SERVICE OF WATER.—5. *Providing and fixing of fire-plugs, &c.—Order by official referees.—Owners of water-works to fix plugs, &c.—Refixing of plugs on the removal of pipes—Expense of plugs and boxes.—Reference of disputes to official referees.—Award of official referees thereon.—Penalty for not providing fire-plugs.*—And now, for the purpose of making provision for the service of water for the extinction of fire: be it enacted, with regard to the fire-plugs, fire-cocks, and other apparatus for such service, so far as relates to the providing and fixing thereof, that if any office for insurance against loss by fire, or the commissioners of the metropolitan police, or the churchwardens or overseers or constable of any parish or place, or any inhabitant, apply to the official referees of metropolitan buildings to direct such apparatus to be fixed at any one point or place, or more, then it shall be the duty of the official referees, and they are hereby required, to inquire into the matter, and to order and award that the owners of water-works, the mains of which lie within the limits of this Act, do fix such apparatus at any such points or places as to the said official referees shall appear proper, having regard to the proximity of buildings to the mains of any such water-works, and to the opening of streets, and to any other circumstances which render a supply of water necessary or expedient, or which will render the service thereof more easy and efficient for the purpose; but not so as to require that such fire-plugs, or other such apparatus, shall be fixed with any less interval than *fifty* yards; and that upon such order and award being made, it shall be the duty of the owners of such waterworks, and they are hereby required, to provide and to fix such apparatus, and to protect the same by proper iron boxes, and from time to time to repair

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